

Global internet outage points to weakness of the cloud infrastructure, says expert

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Credit: Pixabay

After the massive internet outage Tuesday that shut down websites and apps across the world, Virginia Tech computer scientist Ali Butt says the incident points to the weakness of the cloud infrastructure upon which many prominent websites are built.

Years of consolidation, Butt says, has slowly eroded the robustness of web [service](#) providers and also made them more vulnerable to cyberattacks.

"Over the years, the foundational infrastructure that powers websites and internet services has been consolidated into fewer cloud service providers such as Amazon and content delivery networks such as Fastly," says Butt. "While such consolidation has advantages of scale and cost, it has slowly eroded the robustness that comes from having many service providers that could seamlessly work with each other."

Butt explains that an initial suspect for the recent [outage](#) has been a misconfiguration that led to an internal service outage that in turn took down the many services and websites which rely on the providers. "This is akin to replacing all local streets with a highway, where a single crash can shut down the highway, leaving users few alternate options."

"Some would argue that this means we should have highways with more lanes for [internet services](#)," says Butt. "That is good, but we should think about providing and supporting more alternate service providers as well. This would need a rethink and require the support of more cloud providers."

Butt says that another reason for this massive [internet](#) outage could be that the service provider was targeted by a cyberattack. "Though that has not been identified as a reason this time, it's an event waiting to happen. What is concerning is why were there not enough checks to prevent human or configuration errors in these crucial services. We need to make our cloud service infrastructure more robust, more scalable, and more secure."

"This outage is significant as it highlights the weaknesses of our cloud infrastructure," says Butt.

"In this time and age, we have to look at cloud services infrastructure as a national infrastructure that needs attention and security just like we do for our other [infrastructure](#)," says Butt. "To this end, the cybersecurity and secure management policy aspects also need to be a first class concern. Service providers are failing and have become vulnerabilities that we should address and proactively fix."

Provided by Virginia Tech

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